

MAJOR DUTIES

Serves as Master of a large (over 100 feet in length) diesel-powered twin screw towboat with a total of 2,000 hp or more. The towboat is typically engaged in a variety of operations on inland waterways of the U.S. including towing of plant and equipment; making special and other inspection trips; conducting channel patrol operations to locate and mark channels; establishing and relocating aids to navigation; and similar operations. Is responsible for the efficient operation, safety, and security of the vessel, its crew, passengers, vessel machinery, equipment, tools, and supplies, and barges and cargo in tow. Is on call 24 hours/day during periods of vessel operation. In this capacity, performs the following:

1. Through subordinate supervisors/crew chiefs, supervises and directs the activities of a crew of 9-30 personnel assigned to vessel departments or crews (engine room, deck crew, galley, etc.) employed as engineers, pilots, mates, strikers, marine oilers, deckhands, cooks, food service workers, other supporting trades and crafts positions, and clerical support positions.

a. Planning. Plans for vessel staffing, operating supplies and materials, subsistence needs, fuel requirements, and other comparable support requirements prior to the beginning of the work season. Participates with supervisor and his staff in planning for annual repair, maintenance, and modification requirements. In collaboration with subordinate crew chiefs, plans weekly or monthly work schedules and sequence of operations for subordinates. Establishes deadlines and priorities on the basis of general work schedules and methods and policies established by higher levels of supervision. Determines the number of shifts to be worked, how they are to be set up, and the assignment of subordinates to shifts. Determines how many assignments can be done concurrently, how many must be delayed, and the number and types of employees needed, considering skills, personnel, materials, and equipment available and required.

b. Work Direction. Selects workers and, through subordinate crew chiefs, assigns tasks to be performed. Explains work requirements, methods, and procedures; instructs subordinates in new procedures; and provides advice when problems arise. Reviews work in progress or on completion. Adjusts plans, assignments, and methods as necessary to accomplish the work as effectively and economically as feasible. Approves the equipment, supply, and maintenance requirements recommended by crew chiefs. Assures arrival of supplies and equipment at work site as needed. Coordinates work of the vessel with other units that may be involved, such as river construction units.

c. Administration. Exercises approval authority for leave schedules and requests referred by crew chiefs. Recommends promotions or reassignments of subordinates. Sets performance requirements for vessel crew chiefs and reviews requirements they establish for their subordinates, and approves formal performance appraisals. Reviews personnel actions initiated by subordinate crew chiefs and acts on personnel problems referred by them. Identifies the need for and plans necessary on-the-job training for subordinates. Initiates proposals for disciplinary action where needed. Promotes the participation of subordinates in programs such as the suggestion program, cost reduction program, etc. Prepares, maintains, and submits in a timely manner operation and production reports and logs, and records and furnishes work status information to higher echelons. Periodically reviews job descriptions of

subordinates for currency and accuracy; reports detailing of employees to jobs other than their own; and initiates or participates in review and improvement of work methods, organizational features, and the structuring of positions to eliminate unnecessary ones and achieve optimum content in those remaining. Accomplishes supervisory functions in accordance with the provisions of the local EEO and Affirmative Action programs.

2. Directs the vessel operations. Exercises independent judgment in determining if weather and navigation conditions are suitable for operation of the vessel. Instructs and issues orders to pilots when special river channel conditions arise. As required, stands a regular pilot's watch. Reports the progress of vessel operations, indicating causes of lost time, river stages, current, wind, etc. Inspects the vessel and its operations for compliance with laws pertaining to the navigation including proper display of signal lights, sounding of proper signals, and other navigational requirements. Identifies navigational hazards and radios reports to headquarters for dissemination to navigation interests concerning any changes to steering directions. Vessel operations typically include the following:

a. The Master is responsible for the making up and breaking up of tows for long towing operations (approximately 200 or more miles) and the landing and disposing of the same at the destination. Tows typically consist of six or more barges including many pieces of floating plant and equipment; barges; quarterboats; supply and warehouse barges; office barges; water purification plant barges; fuel, gasoline and oil barges; material barges loaded with concrete mattress, sand, gravel, rock, piling, etc.; as well as all types of construction plant and equipment barges.

b. Directs the vessel in channel patrol operations over extensive stretches of inland waterway (200 or more miles). Sounds navigable channels; determines sufficiency of channel depth to support commercial traffic and sets buoys outlining the navigable channel; and removes and disposes snags, logs, and other obstructions to navigation. Drafts or directs the drafting of informal navigation channel reports, reflecting soundings made, channel conditions, navigation channel changes, and other pertinent data and information. Similarly, furnishes Masters and Pilots of other vessels with the latest information on channel conditions, as necessary.

c. Directs vessel operations of comparable scope, complexity, and difficulty.

3. Incumbent is responsible and accountable for all property assigned to the vessel. Conducts inventories to ensure that all property is accounted for. Periodically recommends the condemnation of obsolete, worn out, and unserviceable property and equipment. Inspects safety, navigational, fire, and life-saving equipment to determine that equipment is in good serviceable condition and for compliance at all times with all laws pertaining to the operation and navigation of the boat. Studies the operations supervised to identify, correct, or report any unsafe condition or work practice that might cause injury or property damage and medical attention to injured workers. Conducts fire, lifeboat, and man-overboard drills and is responsible for the safety training and safety of the entire crew, plant, equipment, and tow on 24-hour per day basis.

Performs other duties as required and assigned during operation and layup periods.

SKILLS AND KNOWLEDGES

--Must possess a current U.S. Coast Guard license as a Master covering the type, class, horsepower, and size of vessel to which assigned and the waters in which the boat operates. Applies skill and knowledge of a Master and the navigational rules and regulations involved in vessel navigation, and the characteristics of the waters in which the vessel is operated.

--Applies knowledge to read, understand, and apply the information contained in plans, drawings, maps, charts, sketches, and other documents pertaining to the motor vessel operation and the work to be accomplished.

--Applies knowledge of the characteristics and limitations of the motor vessel operated and its mechanical, electrical, electronic, and hydraulic systems in order to direct safe and efficient operations and to make decisions concerning necessary maintenance and repairs. Applies a knowledge of safety rules, regulations, and procedures.

--Applies a knowledge of material, supplies, and equipment necessary for operation of the motor vessel and of the procurement and supply procedures and requirements necessary to obtain such items to provide timely and effective support of operations.

RESPONSIBILITY

Works under the supervision of the Head, Equipment Pool Section, or other competent authority . Supervisor issues operational orders and oral and written instructions regarding work assignments. Supervisor also holds discussions with the incumbent regarding any special or inspection trips, or any unusual events, which may arise.

During towing operations, contact with the headquarters office is accomplished through radio communication. Is responsible and accountable for the care, maintenance, repair, and operation of the motor vessel and its tows and the safety and well-being of the crew. Applies guides including oral and written directives, river maps and charts, District regulations, and navigational regulations. Receives assignments and instructions prior to vessel operation. Receives intermittent written and oral instructions in carrying out work assignments. Work is occasionally spot-checked during operation through supervisory visits for compliance with policy, regulations, and accomplishment of results in accordance with initial instructions. Completed work is reviewed through review of operational reports and logs for compliance with directives when vessel operation should be halted due to hazardous conditions and taking necessary action to protect the vessel, equipment, and personnel assigned.

PHYSICAL EFFORT

Work generally involves light physical effort. Extensive standing and walking may be necessary while on watch.

WORKING CONDITIONS

Work is primarily performed inside in an enclosed pilot house but also requires work outside of

the pilot house, subjecting the incumbent to varying climatic conditions. Hazards include occasional danger of falling overboard, falls on slippery decks or in climbing steep stairways, and injury from moving machinery. A life jacket is worn at all times while on deck. The incumbent is subject to hazards of heavy river traffic at night and during foggy weather.

**MASTER, TOWBOAT
XH-5784-16
EVALUATION STATEMENT**

1. REFERENCES:

a. OPM, Definitions of Trades and Labor Job Families and Occupations, Riverboat Operating Series, WG-5784, August 2001

b. U.S. Army Corps of Engineers Ladder Diagram, 1953

2. SERIES AND TITLE DETERMINATION:

Subject position serves as Master of a large (over 100 feet in length) diesel-powered twin screw towboat with a total of 2,000 hp or more. The towboat typically operates on inland rivers and waterways, performing a variety of operations such as: towing of plant, equipment and supplies; making special or waterway inspection trips; conducting channel patrol operations to locate and mark channels; relocating aids to navigation; and similar operations. The work requires knowledge of the river currents, stages, obstructions, navigation locks and dams, and the handling and operation of large vessels or tows on rivers. Position is allocated to the Riverboat Operating, WG-5784, series.

Since there are no published job grading standards nor specified titles for the WG-5784 series, fabrication of a local job title is allowed consistent with private industry practices. These vessels are considered towboats as they serve as prime movers (over long distances) for major items of non-self-propelled floating plant (i.e., dredges, mat sinking and revetment plant, derrickboats, etc.); extra large tows of fuel, material, and special purpose barges; and self-propelled floating plant such as dredges and other towing vessels. The towboat operation requires that the master possess a Coast Guard Masters license for the inland waterways on which the towboat is operated. The absence of the requirement for a Master's license precludes classification as Master, Towboat. Position is descriptively titled Master, Towboat, in keeping with prevailing maritime titling practices .

3. GRADE DETERMINATION:

This job represents the highest level and scope of responsibility and accountability on the towboat encompassing the vessel, barges and floating plant in tow, machinery, equipment, tools, supplies and staff. It includes 24 hour responsibility for all aspects of the towboat operation and maintenance; involves working with freedom from technical supervision; involves serving as master of a large towboat which, as a minimum, is 100' in length, and has a minimum total propelling engine horsepower of 2,000 hp.,

and

Includes supervisory responsibilities over at least three subordinate crews (Engine Room, Deck and Galley); each of the three crews is supervised by a crew chief position; and total vessel staffing falls in the 9-30 range,

and

The Master's job includes **all** of the following:

(a) Long towing operations involving approximately 200 or more miles per trip along the inland waterways, large tows of six or more barges or comparable items of floating plant, and waterways with swift currents and/or heavy river traffic.

and

(b) Channel patrol operations over extensive lengths of the inland waterways (200 or more miles) to place or reset buoys; sound channel depths; remove and dispose of snags, logs or other obstructions to navigation; and draft navigation channel reports furnishing the Masters and Pilots of federal and commercial vessels with the latest information on channel conditions and suggestions on how to operate vessels to navigate certain hazardous reaches of rivers.

and

(c) Making special and other inspection trips transporting high ranking officers, civilian engineers, and official delegations.

Position is not considered as complex as either the WJ-16 Master, Hopper Dredge, or the XH-17 Master, Pipeline Dredge. In terms of the ranking of the Ladder Diagram, XH-16 is considered the appropriate grade for subject position.

4. FINAL DETERMINATION: Master, Towboat, XH-5784-16

SUPPLEMENTAL INSTRUCTIONS

The existence of each of the following elements represents a basis for grade reductions:

(1) The size of the towboat and the total horsepower of the propelling engines is less than that characteristic of the XH-16 Master.

(2) Supervisory responsibilities and accountability is significantly less than that characteristic of the XH-16 Master and/or the requirement for 24-hour responsibility is absent.

(3) Towing operations involve short trips (significantly less than 200 miles) involving small tows of one or two barges, do not require vessel operation on a shift basis, and do not involve responsibility for operation of the vessel in swift currents or under comparable navigational conditions or in waterways with heavy river traffic.

The Master, Tug, Class I, XH-5782-13 benchmark is useful for cross-comparison of vessel characteristics and working conditions that are less than that of the XH-16 level.